1991-92 whereas it has been on the basis of annual targets fixed in consultation with state nodal departments/agencies during 1992-93.

(b) State-wise information on targets and achievements in respect of Family Type Biogas plants set up under National Project on Biogas Development and Smokeless Chulha installed under National Programme for Improved Chulha for the years 1990-91 to 1992-93 is given in Annexure-2, respectively. The State-wise information pertaining to proposals sanctioned during 1990-91 & 1991-92 and targets assigned during 1992-93 vis-a-vis achievements for respective years under, the programme of community/Institutional/Night-soil Based Biogas Plants is given in Annexures [Appendix 170, Annexure No. 31, 32 and 33.1

(c) Total sums of Rs. 174.76 crores, Rs* 6.62 crores and Rs. 47.03 crores were sanctioned to different State Governments and Programme Implementing Agencies under the National Project on Biogas Development, Community & Institutional Biogas Plants Programme and National Programme on Improved Chulhas, respectively during the years 1990-91 to 1992-93.

(d) Non-Conventional Energy devices, such as biogas plants and smokeless chulhas contribute to environmental upgradation by recycling and conservation of Biogass, improving rural sanitation and reducing deforestation. A total of 17.63 lakh biogas plants installed in the country upto March, 1993 are estimated to generate biogas equivalent to 57 lakh tonnes of fuel wood whereas 145 lake smokeless chulhas installed injthe country savre fuel wood of the order of 101.5 lakh tonnes per annum.

Tapping of Mini-Hydel Power potential

1470. SHRI V. HANUMANTHA RAO : Will the PRIME MINISTER be pleased to state :

(a) whether the Ministry have mapped out. all potential areas or sites having pontial for mini-hydel projects;

(b) if so, the details thereof;

(c) whether Government have contacted State Governments and their respective Electricity Boards to study this potential; and

(d) if so, the details thereof ?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTINAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR) : (a) and"(b) Based on information received from the States/ the Miiristry has prepared a list of 1300 potential small hydro power project sites upto 3 MW capacity. , The identification of sites is a continuous process in consultation with the States.

(c) and (d) Yes, Sir. The Ministry has requested the State Governments to assess the potential in their States. In order to assist in project development, the Ministry has introdu ced a composite promotional scheme for providing financial assistance for undertaking survey and investigations and preparation of Detailed Project Reports. '

Rural households using traditional cooking Chulhas

1471. DR. BAPUKALDATE :

SHRIMATI KAMLA SINHA :

Will the PRIME MINISTER be pleased to state :

(a) whether any study regarding the percentage of rural household in the country using traditional Chulhas for cooking has been conducted;

(b) if so, what are the details thereof;

(c) what is the estimated percentage of women using traditional chulhas for cooking' reported to be suffering from smoke related diseases in the rural aveas; and

(d) what efforts have been made by the State and Central Governments to improve their lot stating the result achieved ?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRTSHNA ' KUMAR) : (a) and (b) Specific study on the percentage of rural households in the country using traditional chulhas for cooking purposes has not come to the notice. However, according to the study conducted by National Council of Applied Economic Research, New Delhi, about 90% of the rural households use non-commercial sources of fuel such as fue' wood, dung-cakes and agricultural residues, f Most of the households using non-commercial . uels for cooking use traditional chulhas,

(e) The studies conducted on health effects of bio-mass smoke indicate that the incidence of smoke related diseases is higher in rural houses using biomass fuels in traditional chulhas. However, quantified conclusions have not been drawn from such studies as there are many other risk factors for such diseases which are difficult to account for.

(d) To improve the quality of life of rural women and also to reduce the incidence of smoke related diseases in them, the Central Govt, is implementing two National programmes viz. National Programme on Improved Chulhas and National Project on Biogas Development through the State Government Nodal Departments and Agencies. The two programmes provide for Central subsidy to beneficiaries for installation of improved chulhas and biogas plants respectively besides other incentives. Under the above programmes, 157.05 lakh chulas and 18.68 lakh biogas plants have so far been set up in the country.

Permission to cane-growers to use alcohol as fuel for veb'cles

1472. SHRI BHUPINDER SINGH : MANN : Will the PRIME MINISTER be pleased to stale :

(a) whether Government are considering to allow use of a'cohol to the cane-?rowers who want to use their own production as alternative fuel for vehicles; and

(b) if so, the details thereof and if not, the reasons therefor ?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR) : (a) No. Sir.

(b) Ethyl Alcohol produced in the country presently from molasses is almost entirely used as chemical feed stosk and for production of potable alcohol. Its custody and usages is now entirely under the jurisdiction of the State authorities.

Strategy adopted to harness solar energy

1473. SHRI GOVINDRAO ADIK : Will the PRIME MINISTER be pleased to state :

(a) wftWh?- it is a fact that in a WHO-sponsored workshop, the need to tap the abundant source of solar energy in India was stressed in view of the fact that India lies in the sunny region and receives four to seven kilowatt hour (KWH) of solar radiation per square metre per day with 250 to 300 clear a sunny days a year ;

Co) if so, the details thereof ; and

(c) what strategy Government have so far adopted or propose to adopt for harnessing the vast source of solar energy ?

THE MINISTER OF IN THE MINISTRY OF NON CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR) : (a) and (b) Yes Sir. WHO sponsored a workshop on "Harnessing of Solar Energy and Designing Energy efficient Buildings in the Health Sector" at National Institue of Health and Family Welfare, New Delhi during January 10 to 14, 1994, in association with the Ministry of Health. This work shop concentrated on use of solar energy in health sector for variety of applications such as water heating, lighting, medical refrigeration, water pumping, powering of medical equipment and solar incubator and design of buildings using solar passive architecture ttc.

(c) Yes, Sir. The Ministry of Non-Conventional Energy Sources havs jrepared plans for harnessing solat- energy through both solar thermal & solar 0'10'ovolatic routes. During the 8th plan, it is envisaged to take up installation of 11 lakh square metre of solar ther nil collector are , 7 lakh nos. solar cokkers, solar ohotovolatic systems aggregating to 25MvV and a solar thermal povver plant of 30MW capacity under the new "Strategy & Action Plan" prepared by the Ministry. The steps taken include promotional policies, package of incentives, soft loans fo' manufacturers and users, information dissemination as well as manpower development.

Fisheries Oceanographic Research Vessels

1474. DR. SHRIKANT RAMCHANDRA JICKHAR : Will the PRIME MINISRER be pleased to state :

(a) whether the Fisheries Oceanographic Research Vessel 'Sagar Sampada' has been successful in exploring the deep sea fish